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T-D

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/091,508 10/30/98 CONNORS

J 68567/PALL

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WASHINGTON DC 20005

IM52/0926

EXAMINER

OCAMPO, M

ART UNIT

PAPER NUMBER

1723

DATE MAILED: 09/26/01

17

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application N .

09/091,508

Applicant(s)

CONNORS ET AL.

Examiner

Marianne S. Ocampo

Art Unit

1723

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2001 and 11 September 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 14-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2 and 20-24 is/are rejected.
- 7) ☒ Claim(s) 1 and 14-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 1998 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The abstract of the disclosure filed on 7-11-01 is objected to because it is too long (i.e. more than 15 lines and/or more than 150 words). Correction is required. See MPEP § 608.01(b).

2. The disclosure is objected to because of the following informalities:

a). the phrase “gaps 68” should be inserted after the word “or” and before the word “between” in page 24, line 23.

Appropriate correction is required.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a) because they fail to show “the thickness, indicated by the letter “t”, of the material forming the filter pack 16 in Fig. 8, as described in the specification, page 24, lines 25 - 28. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Correction is required.

4. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the *gaps* 68 between the internal surfaces of the legs of a pleat in Fig. 8, as described in the specification, page 24, lines 24 - 28. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Correction is required.

5. The drawings are objected to under 37 CFR 1.83(a) because they fail to show “the *first engagement member, indicated by the number “528”*”, in any of the figures, as described in the specification, page 38, lines 11 - 23. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Correction is required.

6. The drawings are objected to under 37 CFR 1.83(a) because they fail to show “the *contact section, indicated by the number “546”*”, of the engagement lip 544 in Fig. 13b, as described in the specification, page 39, lines 28 - 32. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Correction is required.

7. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "536" and "524" have both been used to designate the second segment of the end cap in Figure 13b. Correction is required.

8. The drawings are objected to under 37 CFR 1.83(a) because they fail to show *the contact section 540 being spaced from and no longer in contact with the contact section 546* in Figure 13a, as described in the specification, page 39, lines 29 - 31. It seems that Figures 13a and 13b are both showing the same views/positions of the contact section 540 with respect to the (contact section 546 of the) engagement lip 544. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Correction is required.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1 – 4, 14 – 19 and 25 - 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a). Claim 1 recites the limitation “an outer periphery at the crowns defining a **downside side**” in lines 5 – 6. What is a “downside side”? It is not clear if this is a typographical error where the word “downside” should have been “downstream”, or not. For examination purposes,

the examiner consider the word “downside” as a typographical error where the word “downside” should have been “downstream”.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 2 and 20 - 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reed et al. (US 4,839,048) in view of Stoyell et al. (US 5,543,047).

13. With respect to claim 2, Reed et al. disclose a separation element for separating one or more components from a fluid flowing through the separation element, and the separation element comprising a hollow pleated pack (215, 216) having first (top/upper) and second (bottom/lower) ends, the hollow pleated pack (215, 216) including a porous medium (216) comprising a polymeric material, as in fig. 6 and col. 5, lines 8 – 36, and the element (215) further comprising first and second end caps (204 and 221, respectively) and each end cap being connected to an end of the pack (215, 216), wherein one of the end caps (204) has or includes a

seal (206) having a larger outside diameter than the largest outside diameter of the pleated pack (216, 215) and the other end cap (221), and the end caps (204 and 221) being fabricated or including a polymeric material, as in col. 4, lines 45 – 47 and col. 5, lines 40 – 43. However, Reed et al. fail to disclose the hollow pleated pack having a plurality of pleats wherein the plurality of pleats includes roots, crowns and legs extending between roots and crowns, an inner periphery at the roots defining an upstream side and an outer periphery at the crowns defining a downstream side and wherein each pleat has a height h greater than $(D-d)/2$ where D is the outer diameter at the outer periphery of the pleats and d is the inner diameter at the inner periphery of the pleats and a retainer disposed around the pleats, and the pack being at least 40 inches in length and having an interior diameter of at least about 2 inches. Stoyell et al. teach a separation/filter element comprising a hollow pleated pack (10) having a porous medium (12) comprising a polymeric material or a glass fiber material, as in col. 5, first and second ends and end caps (40) disposed at each end of the pack (10), as in col. 8, and the hollow pleated pack further having a plurality of pleats (11) wherein the plurality of pleats includes roots (11c), crowns (11b) and legs (11a) extending between roots (11c) and crowns (11b), an inner periphery at the roots defining an upstream side and an outer periphery at the crowns defining a downstream side, as in cols. 3 – 4, and wherein each pleat (11) has a height h greater than $(D-d)/2$ where D is the outer diameter at the outer periphery of the pleats and d is the inner diameter at the inner periphery of the pleats, as in col. 4, lines 19 – 22, and a retainer (30, 50) disposed around the pleats, as in figs 1 – 3 and cols. 3 – 8. It is considered obvious to one of ordinary skill in the art to modify the pleated filter pack of Reed et al, in lieu of the pleated pack taught by

Stoyell et al., in order to provide an improved and alternative filtering element which has a greater filtering capacity as well as has longer life span (cols. 1, lines 61 – 63 and col. 2, lines 23 – 30).

14. Although, Reed et al. as modified by Stoyell et al., fail to teach the length of the hollow pleated pack being at least about 40 inches and having an interior diameter of at least about 2 inches, Stoyell et al, teach that the pleated pack may be formed and cut to any predetermined lengths (col. 14, lines 43 – 48) and could have any dimensions (which includes its length and interior diameter) as desired by the manufacturer or user and may be optimized according to the filtering conditions (I.e. extent of filtration and desirable life span of the filter element during filtration), and it is considered that the size of the claimed invention is a mere scaling up of a prior art product (hollow pleated pack) capable of being scaled up, and such were the case, it would not establish patentability in a claim to an old product so scaled. Furthermore, it has been established by the following case law, In *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984)], cert. Denied, 469 U.S. 830, 225 USPQ 232 (1984), that [The Fed. Circuit held that] *where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.*

15. Concerning claim 20, Reed et al. also disclose the hollow pleated pack including a core (220) disposed along the inner periphery of the pleats/pleated pack, as in fig. 6 and col. 37 – 38.

16. With regards to claim 21, Reed et al. fail to disclose the pleated pack is free of a core. Stoyell et al. further teach the hollow pleated pack (10) may be free of a core (20), particularly when the flow of fluid therethrough is from inside to outside of the filter (10) and the presence of such a core is unnecessary, and thus making the weight of the entire filter assembly less.

17. Concerning claim 22, Reed et al. further disclose the end cap (204) including the seal (206) comprising an open end cap including a substantially cylindrical configuration, as in figs. 5 – 6, having an outer periphery and a channel circumferentially arranged in the outer periphery and the seal (206) is positioned in the channel, as in fig. 6.

18. With respect to claim 23, Reed et al. fail to disclose the legs of the pleats being in intimate contact along substantially the entire height of the pleats. Stoyell et al. further teach the legs of the pleats (11) of the pleated pack (10) being in intimate contact along substantially the entire height of the pleats, as in figs. 1 – 2 and col. 4.

19. Regarding claim 24, Reed et al. fail to disclose the legs of the pleats being in intimate contact along substantially the entire height of the pleats. Stoyell et al. further teach the legs of the pleats (11) of the pleated pack (10) being in intimate contact along substantially the entire height of the pleats, as in figs. 1 – 2 and col. 4.

Response to Arguments and Examiner's Remarks

20. Applicant's amendments and arguments filed 7- 11-01 and 9-20-01 have been fully considered but they are not persuasive. First of all, the examiner extends her appreciation for the diligence shown by the applicant's representative in the submission of the supplemental amendment on 9-11-01. However, the arguments filed on 9-20-01 regarding the size and the interior diameter of the claimed invention is unpersuasive and in light of the case law set forth above, the difference in relative dimensions (which includes size/length of the filter assembly and its interior diameter) of the claimed invention and the prior art are deemed unpatentable and considered an obvious variable to optimize or modify to create a desirable effect, i.e. longer and larger filter elements would lessen/reduce amount of unnecessary joiner end caps to join smaller filter elements to make the same length and also thereby lessening costs of making such filter elements. Longer and larger filter elements also offer longer life span compared to its smaller filter counterparts.

21. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

22. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Allowable Subject Matter

23. Claim 1 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action. The following is a statement of reasons for the indication of allowable subject matter: the closest prior art are Pall (US 4,228,012) and Pall (US 3,246,920). These prior art and those searched, have failed to disclose or render obvious a separation element having all the recited structural limitations of the base claim 1, particularly two or more hollow pleated packs being attached by joiner caps

making a hollow separation arrangement of at least about 40 inches in length and having an interior diameter of at least about 2 inches, and first and second end caps attached to (the ends) of the hollow separation arrangement wherein one of the first and second end caps comprises a seal having an outside diameter greater than the largest outside diameter of the hollow separation arrangement. Claims 14 – 19 are dependent claims of instant claim 1, and they also contain the allowable subject matter.

Conclusion

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 4,228,012 (Pall) and 3,246,920 (Pall). Pall (012) teaches two or more hollow packs connected by joiner caps and having first and second end caps being attached to the hollow separation arrangement formed by connected hollow packs, and at least one the first and second end caps include a seal having an outer diameter equal to the largest outside diameter of the hollow separation arrangement. Pall (920) teach coupling elements with a seal having an outer diameter greater than the largest outside diameter of the hollow separation arrangement but does not disclose additional joiner end caps connecting two or more hollow packs to form the hollow separation arrangement.

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marianne S. Ocampo whose telephone number is (703) 305-

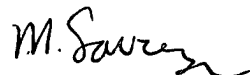
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1039. The examiner can normally be reached on Mondays to Fridays from 8:00 A.M. to 4:30 P.M..

26. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker can be reached on (703) 308-0457. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

27. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

M.S.O.
September 24, 2001


MATTHEW O. SAVAGE
PRIMARY EXAMINER